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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT,
NTS EVENT 'MAST', 19 JUNE 1975

J. R. Woolson, et al

Teledyne Geotech

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NTS Event "MAST", 19 June 1975

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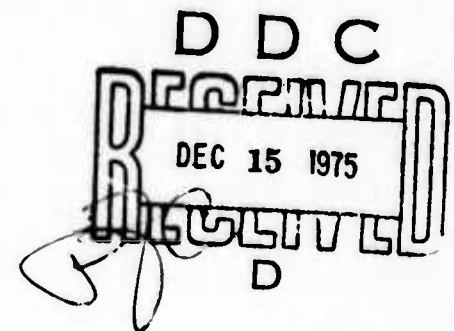
September 1975

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SDCS Event Report No. 18

NTS Event "MAST", 19 June 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	Origin Time	Latitude	Longitude	m_b	M_s
NORSAR	13:00:10	38 N	116 W	5.8	N/A
LASA	12:59:57	37.3N	117.7W	5.6	N/A
Hagfors Array, Sweden	13:00:01	37 N	115 W	6.3	5.0

Using SDCS stations, LASA and NORSAR, the epicenter location becomes

SDCS & Arrays	13:00:01	37.3N	116.3W	5.9	5.5
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All SDCS stations were operational for this event.

Short-period signals associated with this event were recorded at all SDCS stations along with LASA and NORSAR. The short-period horizontal channel gains at HN-ME were indeterminable due to erratic calibrations. The NORSAR short-period subarray signal presentation was not recoverable and three "on-line" array beam traces are presented.

Long-period signals were recorded at all SDCS stations; however, high-amplitude instrument pulsing on the HN-ME vertical channel precluded precise analysis of the long-period data at that station and unresolved horizontal gains at CPSO prevented rotation of the N-S and E-W components to orientations radial and transverse to the event location.

Long-period array data was not recoverable due to magnetic tape problems at SDAC.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES			ELEVATION METERS	INSTRUMENTATION	
		DEG	MIN	SECS		SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65	14	00.0 N	626	None	31300
		147	44	36.0 W			
CPSO	McMinnville, Tennessee	35	35	41.4 N	574	6480 V 7515 H	SL210 V SL220 H
		085	34	13.5 W			
FN-WV	Franklin, West Virginia	38	32	58.0 N	910	KS36000	KS36000
		079	30	47.0 W			
LASA	Billings, Montana	46	41	19.0 N	744	HS10	7505A V 8700C H
		106	13	20.0 W			
HN-ME	Houlton, Maine	46	09	43.0 N	213	18300	SL210 V SL220 H
		067	59	09.0 W			
NORSAR	Kjeller, Norway	60	49	25.4 N	379	HS10	7505A V 8700C H
		010	49	56.5 E			
RK-ON	Red Lake, Ontario	50	50	20.0 N	366	18300	SL210 V SL220 H
		093	40	20.0 W			
WH2YK	White Horse, Yukon	60	41	41.0 N	853	18300	SL210 V SL220 H
		134	58	02.0 W			

3.

HYPOCENTER DETERMINATION

INPUT FOR EVENT 19 JUN 75
13:00:00.0 37.000N 116.000W 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST		
LAO	13 02 52.0	-0.2	0.0	12.0	35.4
PK-ON	13 04 45.5	0.3	-0.0	21.0	42.8
CPO	13 05 22.9	-0.3	0.0	24.7	84.7
WH2YK	13 05 37.2	0.4	0.6	26.2	339.1
FN-WV	13 06 01.5	0.5	0.5	28.9	76.2
HN-ME	13 07 08.2	0.3	0.0	36.6	60.5
NAO	13 11 31.0	-0.8	-1.2	73.1	24.1

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
13:00:08.0	37.503N	116.147W	42. CALC	0.5	4	7
13:00:01.2	37.331N	116.278W	0. REST	0.6	3	7

CALC
1 . 1
0 . 0
0 0.3 2
0
0 0.0 0
0 . 0
0 . 0

REST
1 . 1
0 . 0
0 0.3 2
0
0 0.0 0
0 . 0
0 . 0

CHI2 COVERAGE ELLIPSE: 95 PER CENT CONF..LEVEL, SDV= 1.69
MAJOR 61.6KM. MINOR 37.9KM. AZ= 31 AREA= 7322 SQ.KM. REST

DATA SUMMARY

INPUT FOR EVENT 19 JUN 75
13:00:00.0 37.000N 116.000W 0KM.

STA.	PHASE	ARRIVAL		INST	PEP	A/T	MAGNITUDE		DIR	DIST
		TIME					MB	MS		
LAC M	EP	13 02	52.0	AB	1.0	363.	6.36			12.0
RK-CN	EP	13 04	45.5	SPZ	0.7	3104.	6.29			21.0
RK-CN	LQ	13 12	40.0	LPT	13.0	457.				
RK-CN	LR	13 13	35.0	LPZ	14.0	1158.		5.51		21.0
CPO	EP	13 05	22.9	SPZ	0.9	729.	6.00			24.7
CPO	LQ	13 13	42.0	LPT	18.0	0.				
CPO	LR	13 15	24.0	LPZ	15.0	1995.		5.81		24.7
WH2YK	EP	13 05	37.2	SPZ	1.3	372.	5.69			26.2
WH2YK	LQ	13 14	46.0	LPT	20.0	158.				
WH2YK	LR	13 16	41.0	LPZ	17.0	853.		5.47		26.2
FN-WV	EP	13 06	01.5	SPZ	1.3	93.	5.27			28.9
FN-WV	LQ	13 16	07.0	LPT	16.0	824.				
FN-WV	LR	13 18	02.0	LPZ	16.0	1127.		5.63		28.9
HN-ME	EP	13 07	08.2	SPZ	1.1	943.	6.21			36.6
NAO	EP	13 11	31.0	AB	0.8	124.	5.68			73.1

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPHAG	LPSDV	LPSTA
13:00:08.0	37.503N	116.147W	42. CALC	5.81	0.43	6	5.47*****		1
13:00:01.2	37.331N	116.278W	0. REST	5.86	0.39	6	5.47*****		1

RK-UN 19 JUN 75

SPZ
2066.17 MU

13:04:45.6

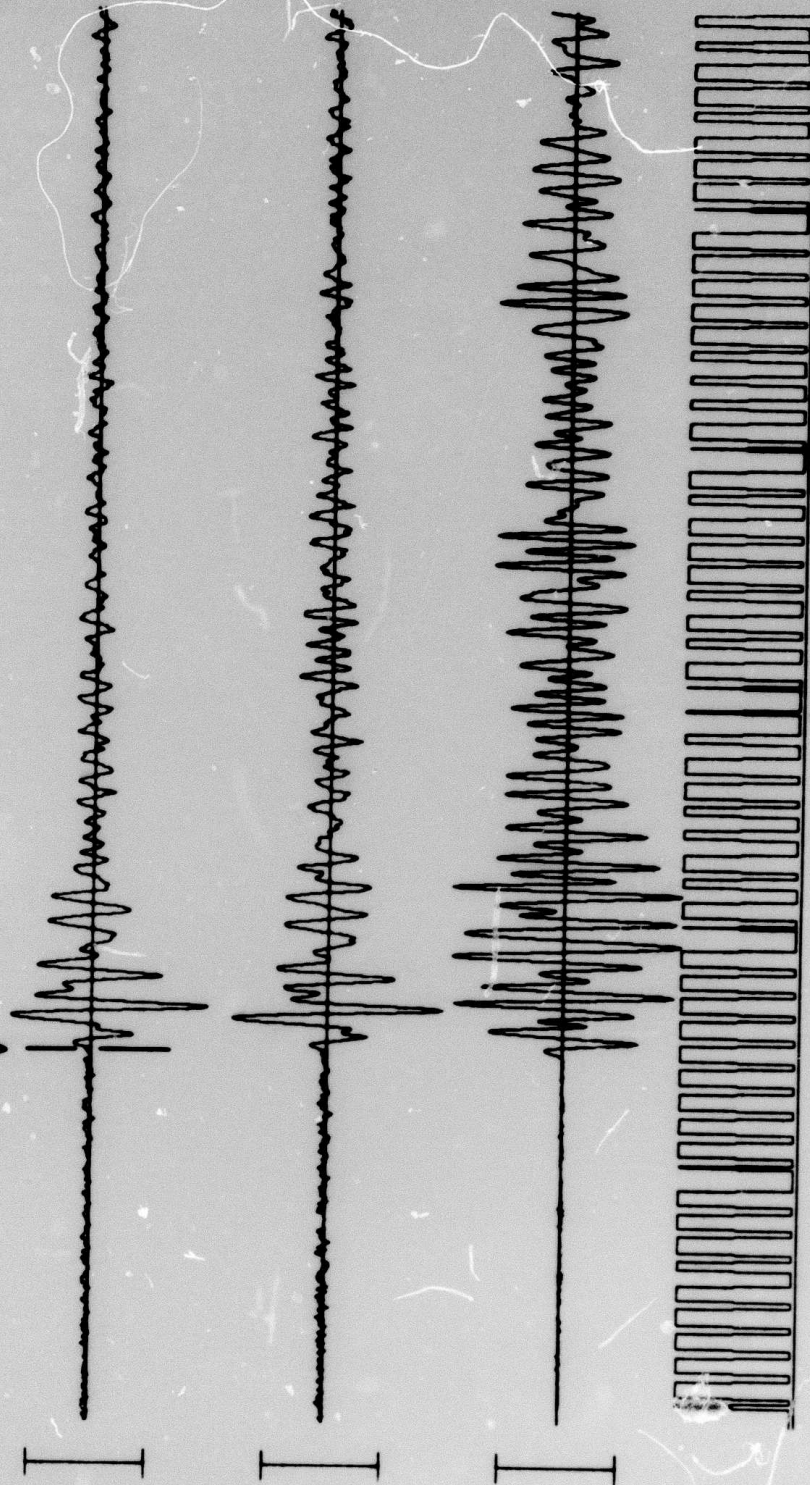
6.
SPR
1989.18 MU

SPT
312.98 MU

TIME

10 SEC

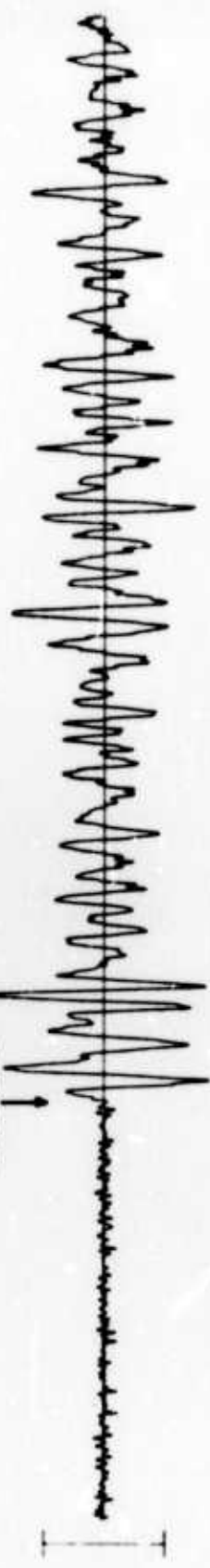
13:05:00



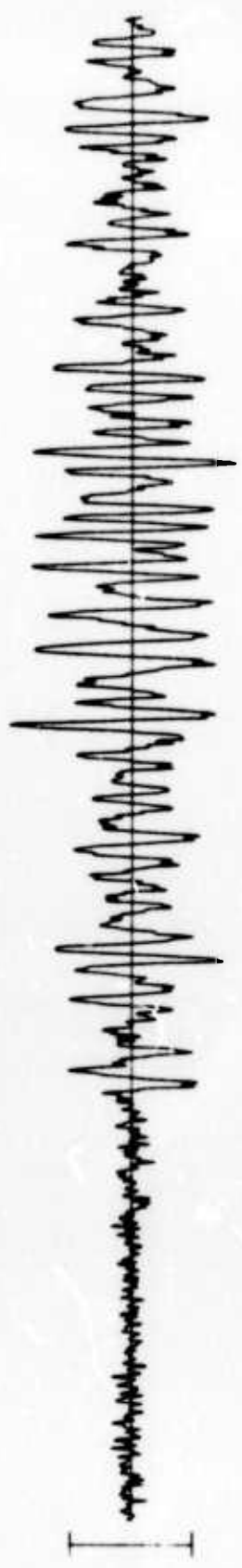
CPSO 19 JUN 75

SPZ
409.36 MU

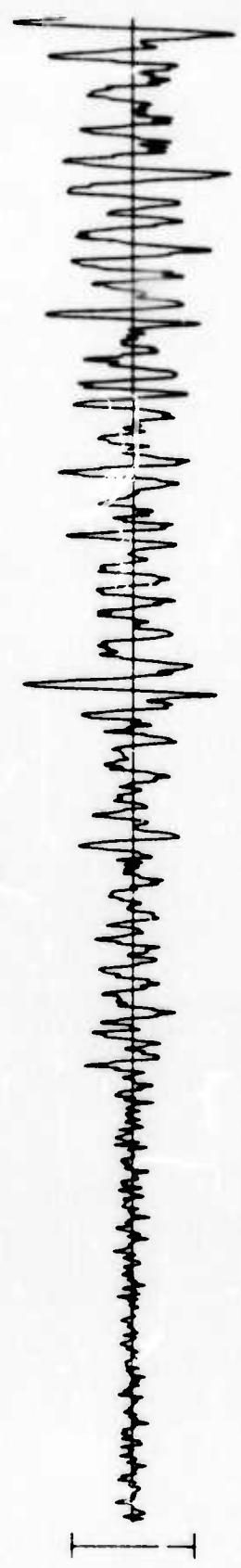
13:05:22.9



SPR
108.80 MU



SPT
122.47 MU



TIME

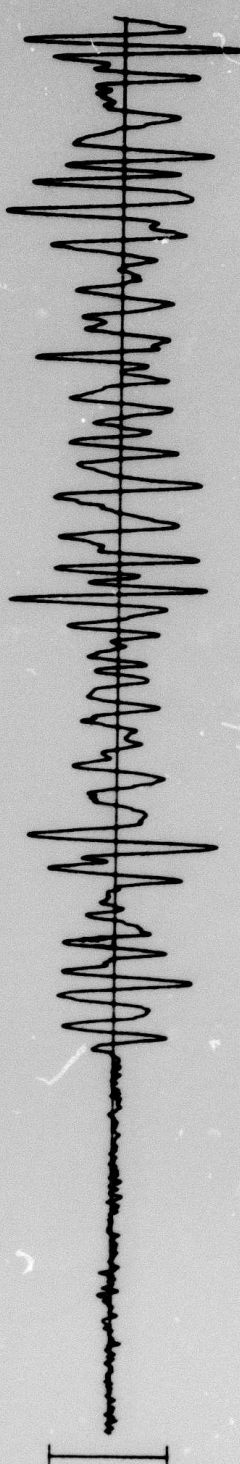
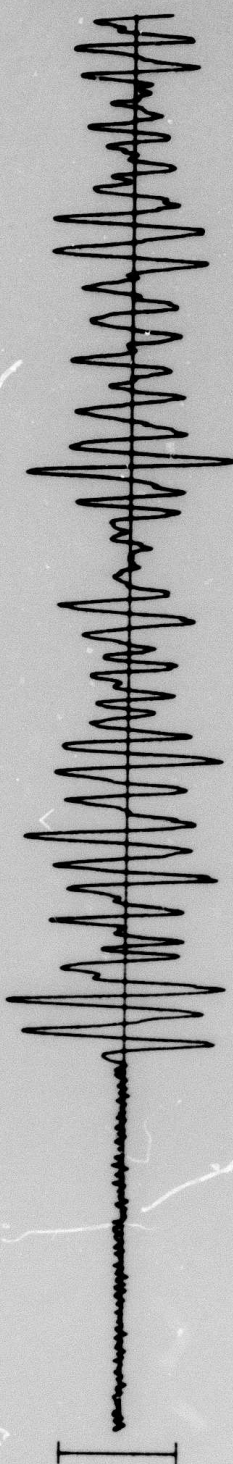
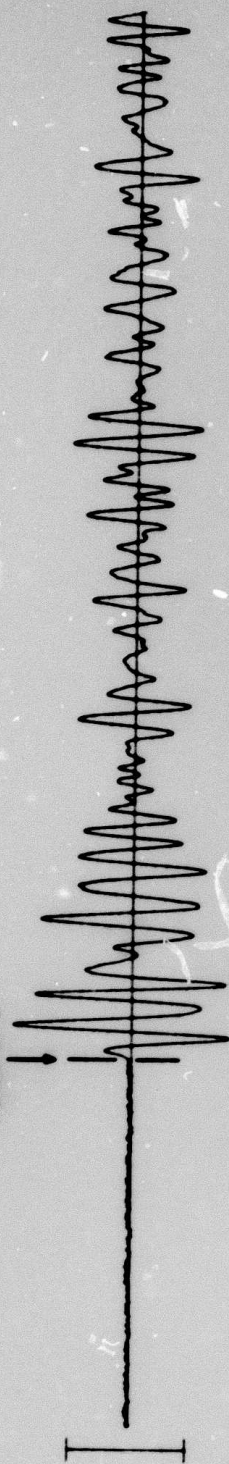
13:05:20



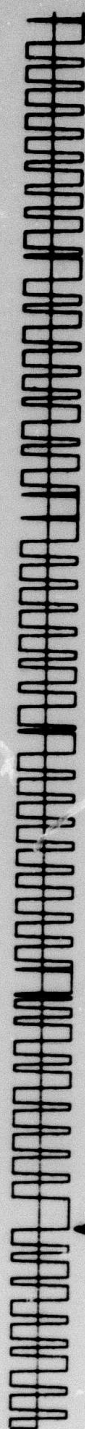
10 SEC

WH2YK 19 JUN 75

13:05:37.2



8.



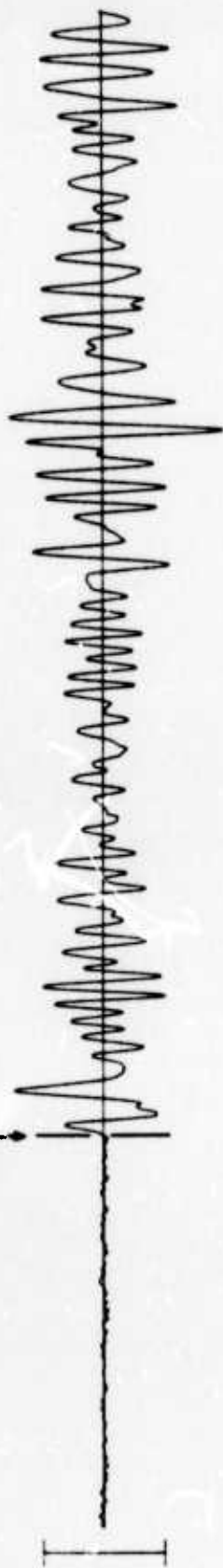
13:05:30

10 SEC

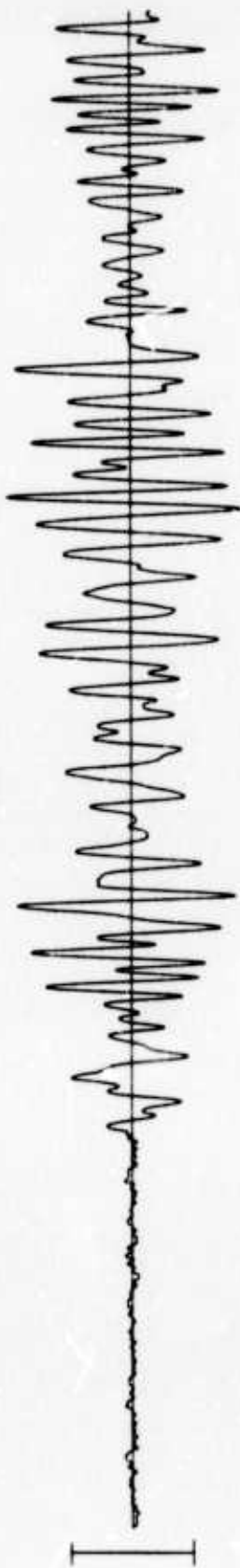
FN-WV 19 JUN 75

13:06:01.5

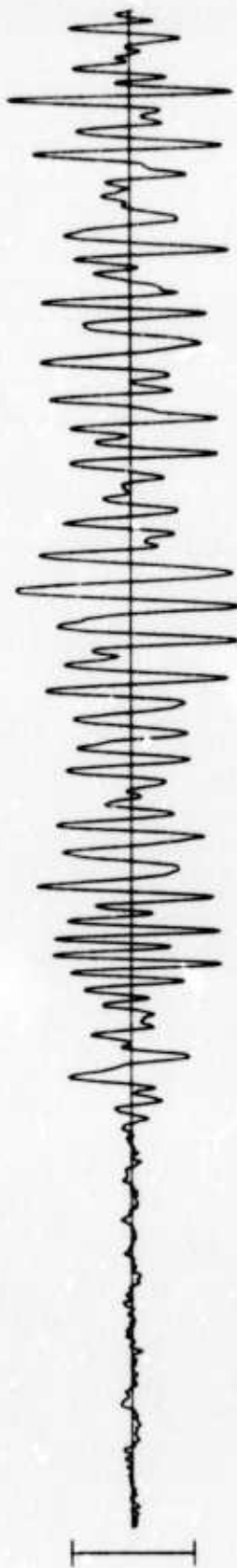
SPZ
68.16 MU



SPR
94.12 MU



SPT
38.15 MU



TIME



13:06:00

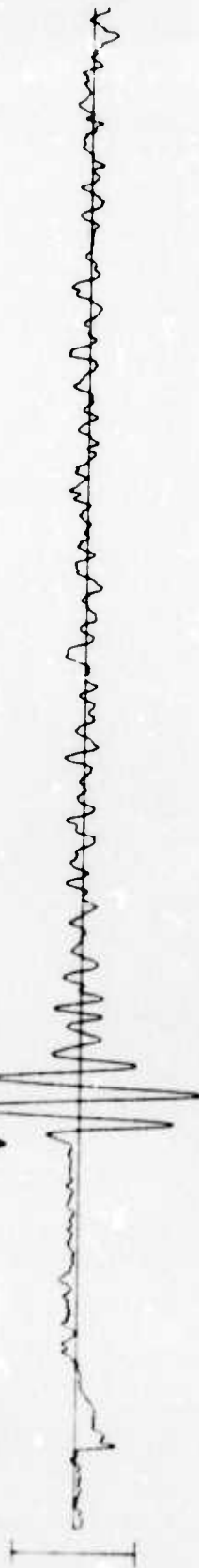
10 SEC

9.

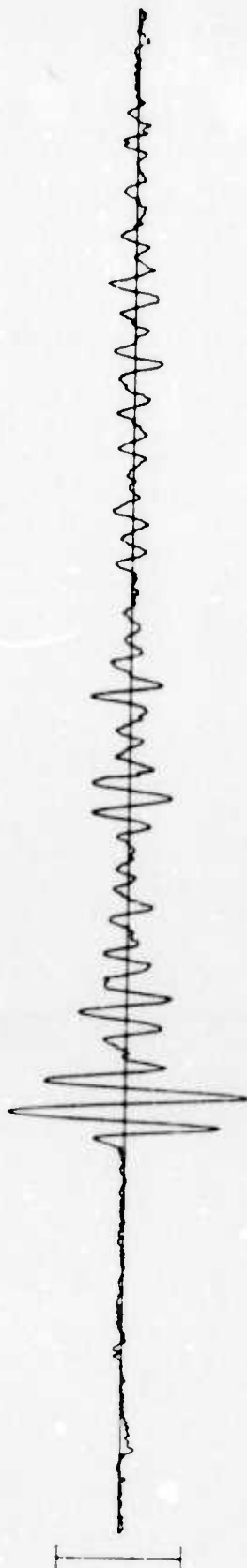
HN-ME 19 JUN 75

SPZ
413.98 MHz

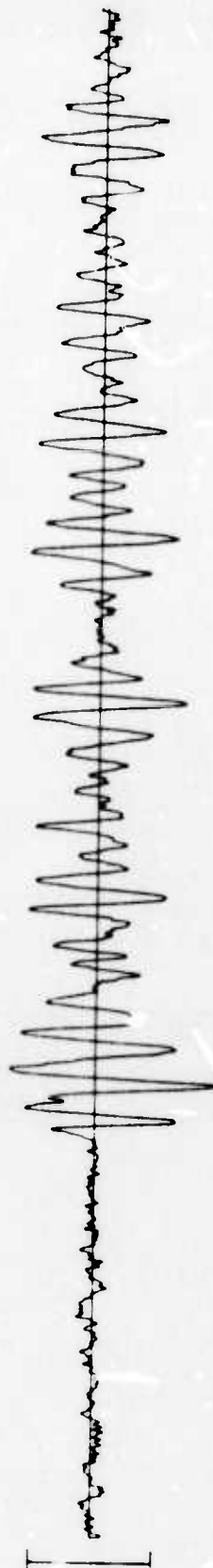
13:07:08.2



SPR
UNK



SPT
UNK



TIME



*calibrations invalid

13:07:00

10 SEC

LASA

1 19 JUN 1975

2 12 59 57 37.3N 117.7W

3 13 2 52.0 LAO P

330 D 5.7 40 CALIFORNIA-NEVEDA BORDER
239.1 1.0 8.3 12.6 226.7

EPX 61337

BP-B 0.6-2.0 HZ

ABN 26

13:02:42.0

AB 400

FAB 370

FAB1 450

PAB2 530

PAB3 480

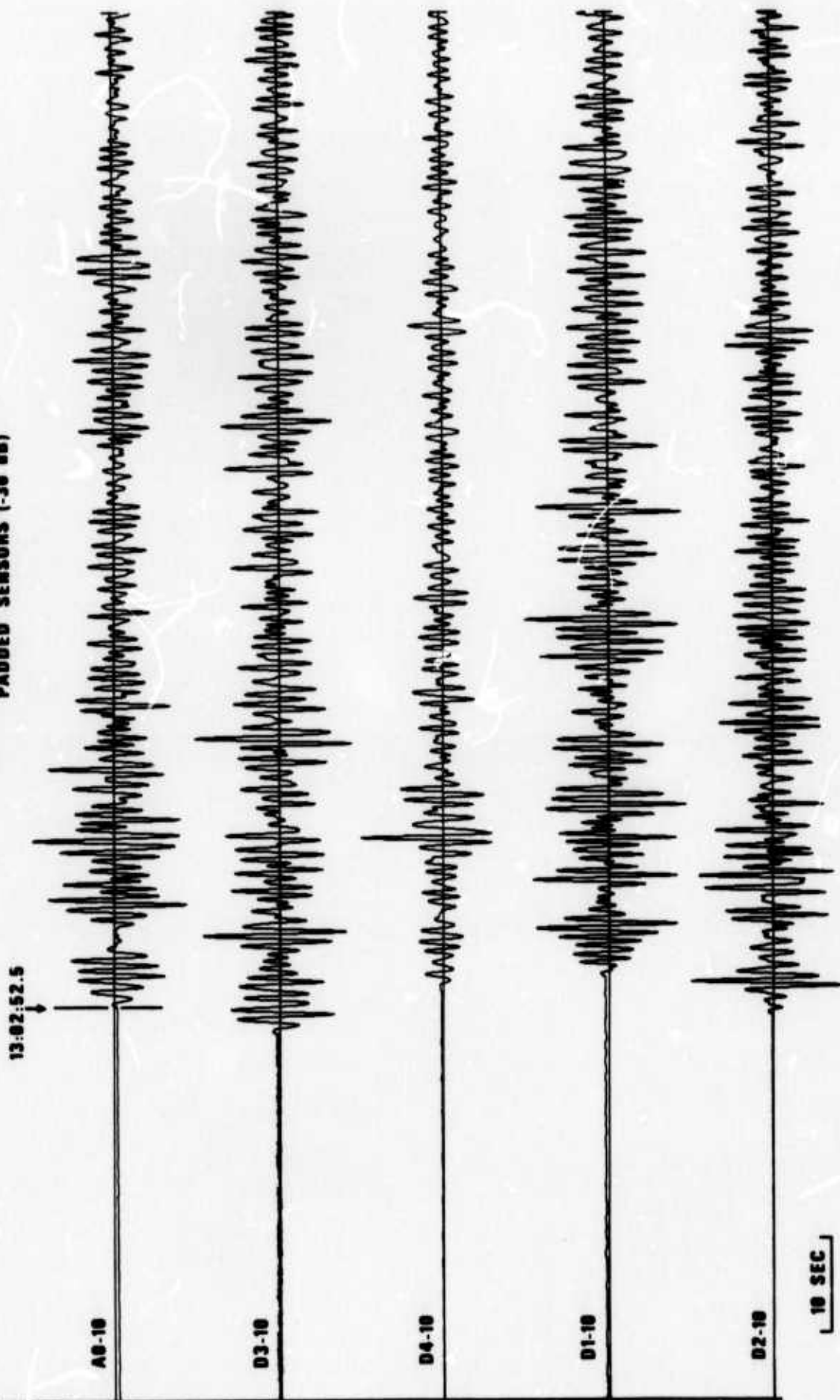
PAB4 360

10 SEC

//

LASA (INDIVIDUAL SHORT-PERIOD INSTRUMENTS) 19 JUNE 75

PADDED SENSORS (-30 dB)



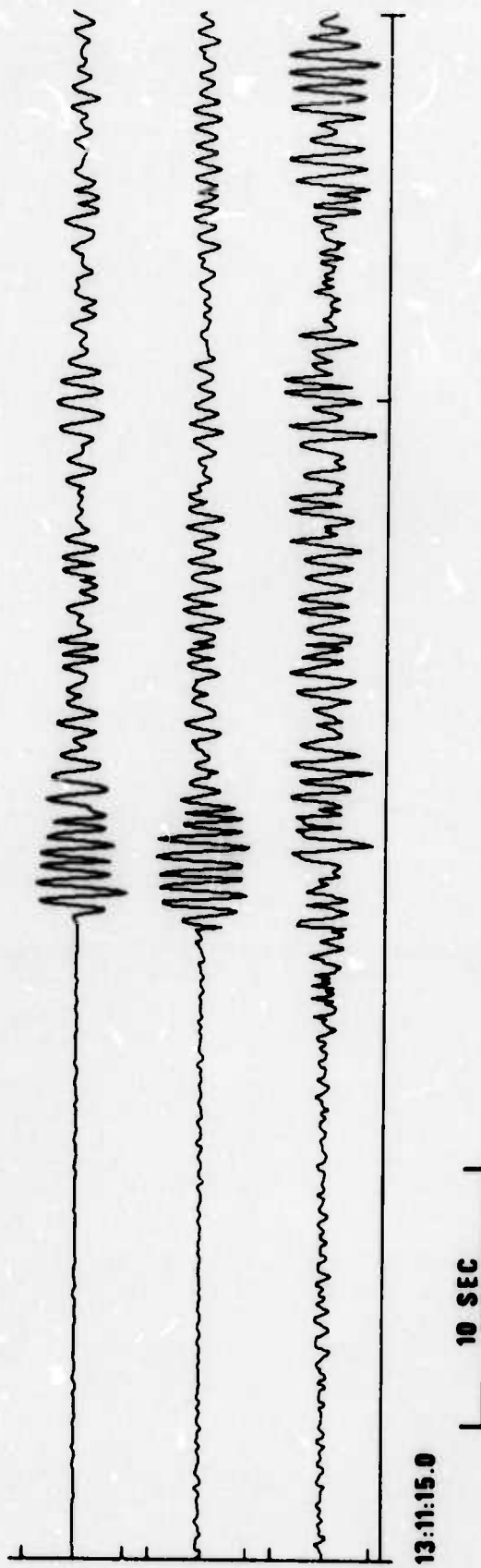
(NO AMPLITUDE DETERMINATIONS MADE DUE TO UNRESOLVED SCALING PROBLEMS)

NORSAR ARRAY BEAMS 19 JUN 75

AB 38N 119W

AB 17N 087W

AB 46N 028W

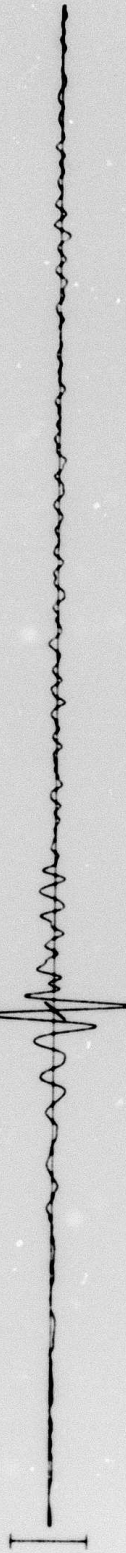


(THIS PRESENTATION HAS TESTED VALIDITY ONLY FOR RELATIVE ARRIVAL TIME)

RK-ON 19 JUN 75

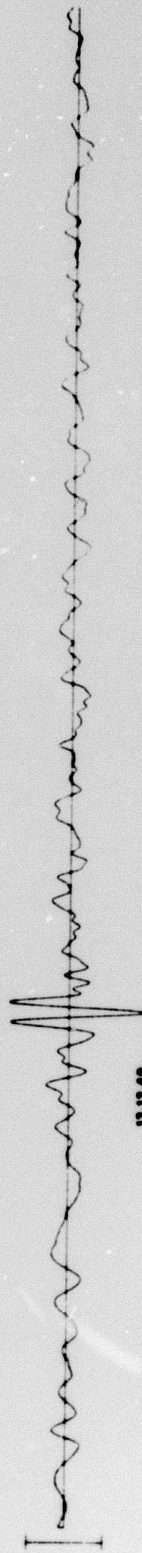
13:12:36

LPZ
4355.10 Hz

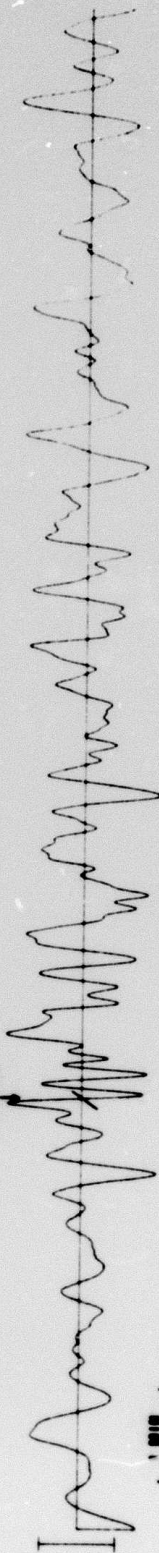


FE
LPR
2736.10 Hz

13:12:40



LPT
1910.99 Hz



CPS0 19 JUN 75

LPZ
10043.00 MP

13:15:24

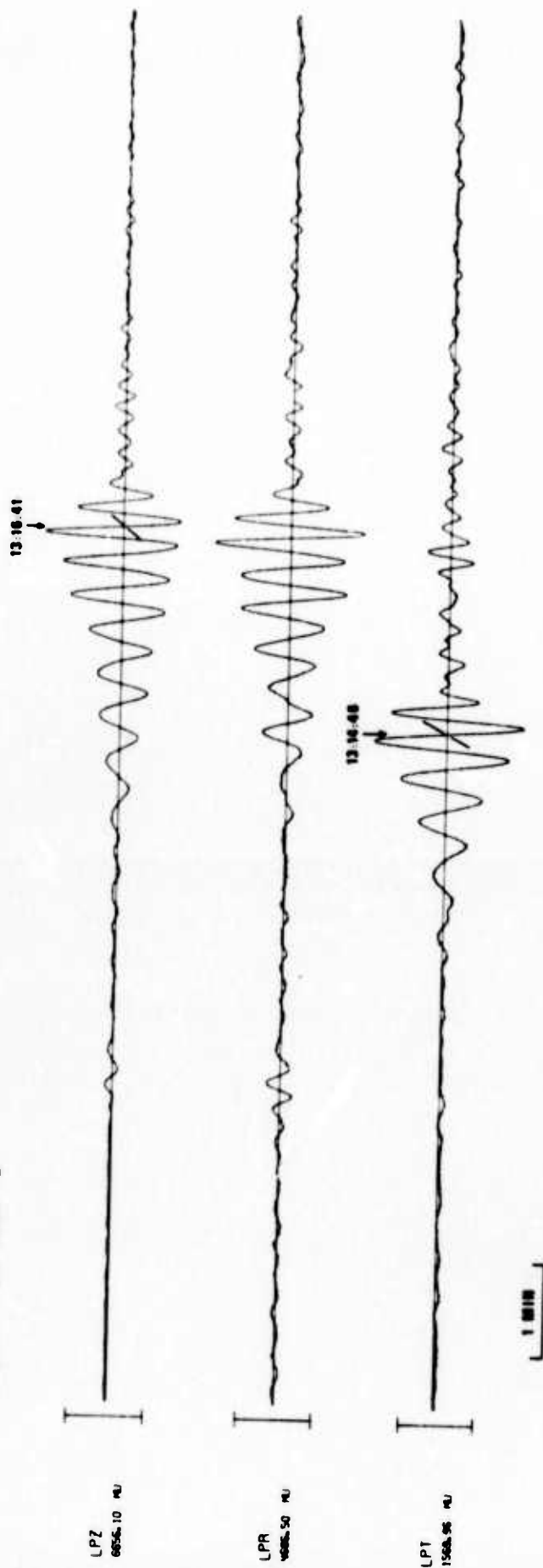
13:13:42

15.
LPH
-JUNE

LPE
-JUNE

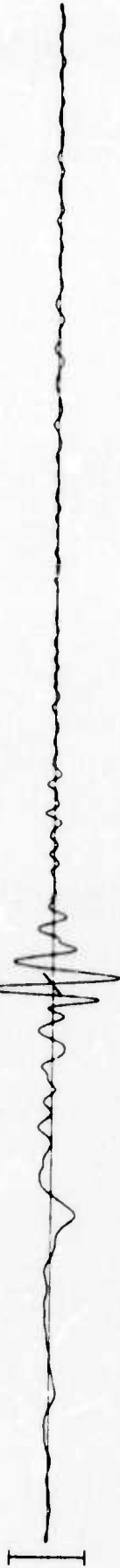
1 MIN
"calibrations invalid"

WH2YK 19 JUN 75

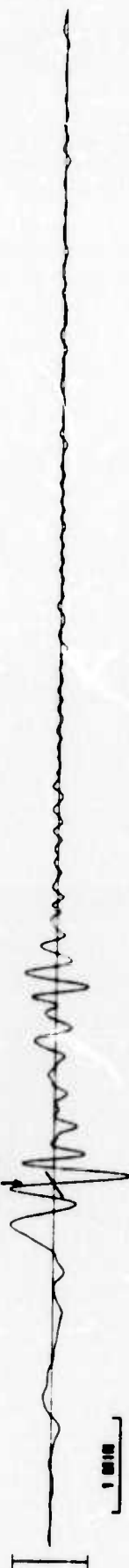


FN-WV 19 JUN 75

13:10:02



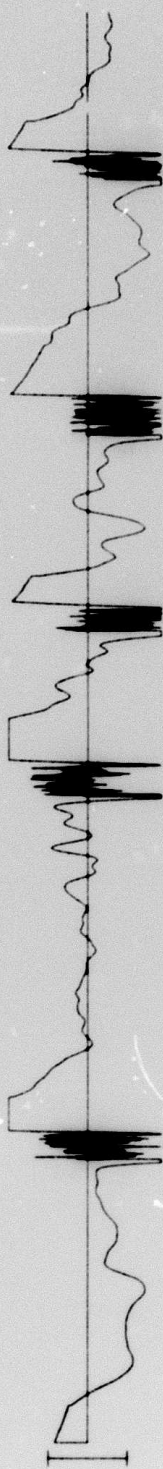
13:10:07



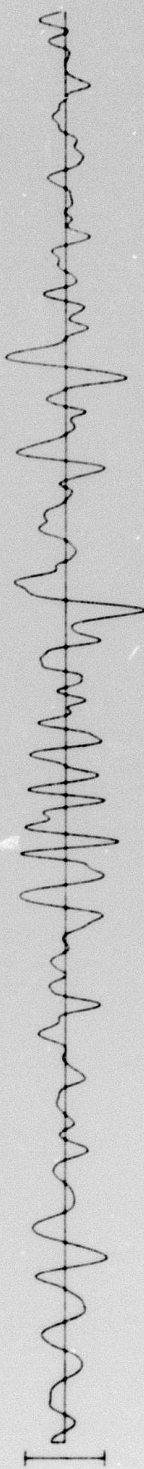
17.

HN-ME 19 JUN 75

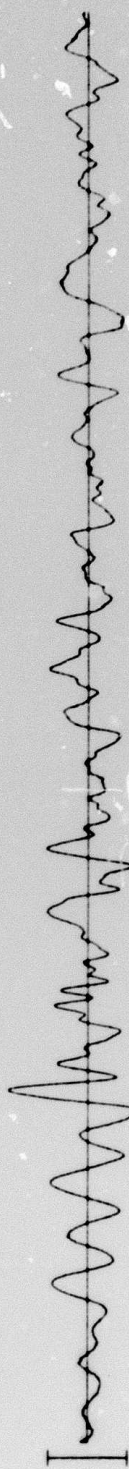
LPZ
4337.04 MU



LPR
1768.32 MU



LPT
503.72 MU



1 MIN